

# INPUT DEVICE OF 3-D TRANSLATION AND ROTATION AND ITS METHOD AND RECORDING MEDIUM

## CROSS-REFERENCE TO RELATED APPLICATIONS

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HJ

[001] This application is a divisional of U.S. Patent Application Serial No. 09/678,274 filed on October 3, 2002, <sup>now US patent no. 6,710,765,</sup> which claims priority to Japanese Patent Application No. 11-283670 filed October 5, 1999, the content of which are incorporated hereinto by reference.

## BACKGROUND OF THE INVENTION

### 1. The Field of the Invention

[002] The present invention relates to an input device of 3-D translation and rotation and its method used for inputting 3-D translation and rotation to a data processing system such as a computer or to an amusement system.

### 2. The Relevant Technology

[003] Recently, with an increase in processing speed of computers and development in computer graphics (CG) technique, 3-D input technique has been finding wide application in various fields rapidly. In particular, demand for 3-D input devices sharply increases in applications in the Internet typified by consumer entertainment systems or VRML (Virtual Reality Modeling Language). In computer graphic design or CAD systems, a mouse or tablet is very popular as an input device. In addition, to carry out manipulation, observation and modification of object models from an arbitrary direction, demand for inexpensive devices for viscerally inputting 3-D translation and rotation is escalating.

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